

REMARKS

In view of the foregoing amendments and the following remarks, Applicant respectfully requests reexamination of the present invention. Claims 28-50 are currently pending in this application. Claims 28, 29, 38 and 44 have been amended and new Claims 45-50 have been added.

Rejection under 35 U.S.C. §112

Claim 44 has been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claim 44 has been amended to recite that the aluminum housing is disposed over the fitting to carry electricity over the fitting. Support for this amendment can be found, for example, in paragraph 45 of the specification and in Fig. 2A. Accordingly, Applicant respectfully requests that this rejection under 35 U.S.C. §112 be withdrawn.

Rejections under 35 U.S.C. §102(b):

Claims 28, 32, 35, 36 and 38-41 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent number 1,539,962 to Seufert et al. (Seufert).

Claims 28, 32, 35 and 36

Independent Claim 28 recites a fitting for a cable having a composite core comprising a collet that is adapted to slide within a collet housing. The exterior shape of the collet has a truncated conical shape, and the collet defines a concentrically oriented lumen. The lumen has a substantially constant interior radius along its length extending from a first end of the collet to a second end of the collet. Additionally, the lumen receives the composite core and maintains the structure of the core, and is configured and dimensioned to frictionally engage the composite core for the length of the lumen. Further, the collet housing has a funnel-shaped interior configured and dimensioned to fit the outside slope of the collet to enable the collet to slide into the collet housing, the funnel shaped interior of the housing being configured and dimensioned to apply

increasing compressive forces to the exterior of the collet as the collet is further compressed into the collet housing.

In the embodiment recited in Claim 28, the interior radius of the lumen is substantially constant to ensure that the compressive force between the collet and the core of the cable extends along the length of the lumen, such that frictional contact extends substantially along the length of the lumen and the composite core that is disposed inside the lumen. As is noted at paragraphs 27-28 of the specification, the frictional force is directly related to the area under compression. Therefore, increasing the area under compression increases the total frictional force.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Seufert discloses clamping means for connecting bimetallic conductors for electric high current installation. The clamp includes two sections of bushing (10, 11) that are joined together by a threaded nut. Each bushing section bears a sleeve (17) therein that is internally conical at its inner end (18). The conical portion of each sleeve bears a nozzle (20) in the form of a truncated cone having a cylindrical bore (21), which at its inner end terminates in an outwardly widening mouth (22). The nozzle (20) receives a steel portion (a) of a bi-metallic conductor, the free end of which is widened or bent in the form of a knot. Tension applied to the cable causes the cable to become wedged in the bushing and nozzle.

With respect to independent Claim 28, the Examiner has equated the nozzle (20) to a collet and the sleeve (17) to a collet housing, and states that the lumen has “a length and a substantially constant interior radius (21) along the length to receive the composite core” as is recited in claim 28.

However, assuming *arguendo* that nozzle (20) can be considered a collet with a lumen, a substantial portion of the nozzle is a widened mouth (22) that is adapted to

receive a widened or bent free end of the steel portion (a) of the bi-metallic conductor. Thus, because a substantial portion of the bore (21) includes the widened mouth, Seufert does not disclose a collet having a lumen with a substantially constant interior radius along the length of the lumen extending substantially from a first end of the collet to a second end of the collet.

Further, the nozzle (20) of Seufert specifically includes a widened mouth (22) to receive a widened or bent free end of the steel portion (a) of the bi-metallic conductor. Such an arrangement allows tension exerted on the cable to cause the cable to become wedged in the bushing and nozzle. As a result, if the bore (21) of Seufert was modified to have a substantially constant interior radius along its length, tension exerted on the cable would disengage the cable from the bushing/sleeve/nozzle assembly and the device would be rendered essentially useless. In contrast, increasing the area of frictional contact in accordance with the structure of independent Claim 28 increases the total frictional force applied by the splice or dead end, to counteract the high tensile forces that can be encountered in an application such as ACCC power cables.

Thus, for at least the above reasons, Applicant respectfully requests that the rejection of claim 28 as being anticipated by Seufert be withdrawn and claim 28 be indicated as allowable.

Claims 32, 35 and 36 all depend from claim 28, and because Seufert fails to teach all of the limitations of claim 28, Applicant also respectfully requests that claims 32, 35 and 36 be indicated as allowable.

Claims 38-41

Independent Claim 38 recites a dead end fitting for a core of an electric power cable including a connecting device for engaging the fitting with a support structure, a collet housing operable with the connecting device, and a collet that is adapted to frictionally fit within the collet housing. The collet housing has a funnel shaped interior extending substantially from a first open end that is configured to receive a conical shaped collet, to a second open end configured and dimensioned to seat a tapered end of the collet and to receive a length of composite core. The collet forms a tapered conical shape, and the collet defines a concentrically oriented lumen. The lumen has

an interior configured and dimensioned to have a substantially constant diameter to substantially conform to an outer shape and size of the core, and also to maintain the outer shape and size of the core.

In the embodiment recited in Claim 38, the funnel shaped interior of the collet housing extends from a first open end to a second open end, enabling the collet housing to apply compression force to the collet along substantially the entire length of the collet housing, or any portion thereof. This will enable the frictional force to be applied to the core over the entire portion of the collet that is disposed in the collet housing.

Seufert discloses the device as previously described. However, with respect to Claim 38 the Examiner has equated the sleeve (17) to the collet and the bushing (11) to the collet housing. In this regard, the Examiner states that the collet housing (11) defines a funnel shaped interior, the funnel shaped interior defining a first open end (15) configured to receive a conical shaped collet (17) and a second open end (conical 16) configured to seat a tapered end of conical shaped collet.

However, a substantial portion of the interior of the bushing (11) is cylindrical, not conical, namely portion (15). Thus, the bushing (11) does not comprise a funnel shaped interior extending substantially from a first open end to a second open end, as is recited in Claim 38.

Further, the bushing (11) of Seufert specifically includes the cylindrical portion (15) to accommodate the sleeve (17) such that pressure is applied by the sleeve onto the copper or aluminum portion (b) of the bi-metallic conductor, but not the steel portion (a) of the bi-metallic conductor. In contrast, the funnel shaped interior of the collet housing extending from a first open end to a second open end as recited in Claim 38 enables the collet housing to apply compression force to the collet, and hence the cable core, regardless of where the collet is within the housing.

Thus, for at least the above reasons, Applicant respectfully requests that the rejection of independent claim 38 as being anticipated by Seufert be withdrawn and claim 38 be indicated as allowable.

Claims 39-41 depend from claim 38, and since Seufert fails to disclose or suggest all of the limitations of claim 38, Applicant also respectfully requests that claims 39-41 be indicated as allowable.

Rejections under 35 U.S.C. §103(a)

Claims 33, 34, 42 and 43 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Seufert in view of U.S. Patent No. 3,384,704 to Vockroth (Vockroth).

Claims 33 and 34 depend from claim 28, and claims 42 and 43 depend from claim 38. As previously described, claims 28 and 38 recite patentable features not disclosed or suggested by Seufert, and Vockroth additionally fails to disclose or suggest such features. Therefore, Applicant respectfully requests that claims 33, 34, 42 and 43 be indicated as allowable.

Claims 30, 31, 37 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seufert in view of U.S. Patent No. 2,988,727 to Burndt (Burndt).

Claim 30 depends from claim 28 and claim 31 depends from claim 30, while claims 42 and 43 each depend from claim 38. Claims 28 and 38 recite patentable features not disclosed or suggested by Seufert, and Burndt additionally does not disclose or suggest such features. Therefore, Applicant respectfully requests that claims 30, 31, 37 and 44 be indicated as allowable.

Double Patenting

Claims 28 and 30-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 8 and 9 of U.S. Patent No. 7,019,217 to Bryant (Bryant) in view of Seufert.

Independent claim 28 recites a fitting as discussed above. Seufert, as previously discussed, does not disclose or suggest a collet with a lumen having a substantially constant interior radius along its length to receive the composite core and maintain the structure of the core. Therefore, it is respectfully submitted that claims 28 and 30-37

are not in fact unpatentable over claims 1, 5, 8 and 9 of Bryant in view of Seufert, and Applicant requests that this obviousness-type double patenting rejection be withdrawn.

Allowable Subject Matter

Claim 29 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have included additional limitations to claim 29, and therefore claim 29 continues to remain allowable.

New Claims

As previously mentioned, Claim 29 was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Thus, Applicants have submitted new claim 45 which incorporates all of the limitations of dependent Claim 29.

Further, new claims 46-47 are each dependent up new independent claim 45, new claim 48 is dependent upon independent claim 28, new claim 49 is dependent upon independent claim 38, and new Claim 50 is dependent upon claim 45.

The fee for the additional claims (small entity) is calculated below:

For	Claims Remaining After Amendment	Highest Number Previously Paid For		Extra Claims	Rate		Additional Fee
Total Claims	23	-20	=	3	x \$25	=	\$75
Independent Claims	3	-3	=	0	x \$210	=	\$0
Multiple Dep. Claim		-	\$370			=	\$
Total Fee						=	\$75

Funds in the amount of \$75 are being transferred by Electronic Funds transfer for payment of the extra claim fees. Please charge any underpayment and credit any overpayment to Deposit Account No. 50-1419.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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